

ABSTRACT

The invention is a hierarchical backup system. The interconnected network computing devices are put into groups of backup cells. A backup cell has a manager software agent responsible maintaining and initiating a backup regime for the network computing devices in the backup cell. The backups are directed to backup devices within the backup cell. Several backup cells can be defined. A manager software agent for a particular cell may be placed into contact with the manager software agent of another cell, by which information about the cells may be passed back and forth. Additionally, one of the software agents may be given administrative control over another software agent with which it is in communication. Thus, the first software agent can direct or alter the parameters of the second software agent to define a new backup regimen for the backup cell controlled by the second software agent. Or, if the second software agent fails or cannot function properly, the first software agent can direct the backup of the second cell. The software agents need not operate on separate computing devices. Additionally, a backup hierarchy may be achieved using the communication and control techniques of the software agents.